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Testimony to the CGA Joint Committee on the Environment
Testimony by Citizens Campaign for the Environment
Louis W. Burch, Government Relations Liaison

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Hartford, CT

Senator Kennedy, Representative Albis, distinguished members of the Environment Committee, thank you for the opportunity to speak today.

My name is Louis Burch, government relations liaison for Citizens Campaign for the Environment (CCE). Supported by over 80,000 members in Connecticut and New York State, CCE works to empower communities and advocate solutions that protect public health and the natural environment. CCE would like to offer the following testimony:

SB 869- An Act Establishing a Tire Stewardship Program

Used automobile and truck tires present a growing solid waste management problem and pose a significant risk to our environment and health. The rubber used in manufacturing tires can contain a wide range of known carcinogens, volatile organic compounds (VOC's) and neurotoxins. When they are not disposed of in landfills, scrap tires are often burned or worse; dumped illegally near waterways and open spaces, where they create a hazard for wildlife and collect pools of stagnant water, ideal for breeding disease transmitting mosquitoes. As they degrade in our environment, tires release toxins which can have devastating effects on water bodies and the ecosystems they support. Given their growing numbers, toxic composition and persistence in the environment, a comprehensive tire stewardship program is urgently needed in the state of Connecticut.

The average tire rubber is made up of about 50-60% rubber polymers, 25% reinforcing agents, and up to 28% vulcanization additives, plasticizers and softening agents. These can include several chemicals of concern including arsenic, benzene, butylated hydroxyanisole, cadmium, carbon black, lead, manganese, mercury, phthalates, polycyclic aromatic hydrocarbons (PAHs) and a laundry list of other known carcinogens, neurotoxins and endocrine disruptors[1]. Health reports from workers in the rubber manufacturing and recycling industries have documented a variety of adverse health effects from exposure to these compounds, ranging from skin and eye irritation, respiratory issues and three different rare forms of cancers[2].

[1] http://grassrootsinfo.org/common-exposures/synthetic-turf/

[2] http://www.ehhi.org/reports/turf/turf_report07.pdf

Used tires have been used for many applications. However, in light of the growing concern over the environmental impacts of used tires and increasing state-wide prohibitions for landfill disposal, new markets for these hazardous waste products are aggressively being pursued by tire manufacturers and recyclers alike. It is critical that any new tire recycling program for Connecticut be designed with careful consideration to the end-use of those materials, while ensuring that the re-use of rubber from recycled tires does not pose a threat to our environment or an adverse impact on public health.

Certain uses of recycled rubber from scrap tires are of particular concern to environmental and health advocates. In the past, scrap tires have been used in the United States and abroad to design artificial reefs to create new ecosystems for marine life, while cutting down on the number of tires that end up in landfills. Unfortunately, manmade reefs constructed with used tires have been documented to have disastrous impacts on the aquatic environment in Florida, Virginia, New Jersey as well as off the coast of Australia. In most cases, the tires were found to release toxins into the surrounding environment with devastating impacts on aquatic life, create a hazard by breaking up and being distributed across the ocean floor, destroy existing coral reefs, wash up on to beaches, etc. This short-sighted use of old tires creates tremendous environmental harm and results in costly remediation efforts that are unfairly shouldered by taxpayers. Most states have recognized the risks and have already stopped using tires to create artificial reefs, but existing reefs continue to deteriorate in the water and can be found washing ashore all over the world. In 2005, volunteers for the Ocean Conservancy's annual international coastal cleanup estimate recovering more than 11,000 tires from the environment.

Another popular use for recycled tires is manufacturing infill for artificial turf athletic fields for professional and interscholastic sports. A single artificial turf field can contain as many as 40,000 shredded rubber tires. This is especially problematic when this material is used to manufacture synthetic fields for high schools and middle schools, where small children can be found using the fields. Children are disproportionally at risk from exposures to crumb rubber due to their developing bodies, proximity to the ground and tendency to engage in frequent hand-to-mouth behavior. A 2007 study by the CT Agricultural Experiment Station concluded that crumb rubber infill used on artificial turf fields contained VOC's, lead, cadmium, zinc and selenium, and that these chemicals carried the potential to volatilize or *offgas* into the air and leach into groundwater. The study also recommended conducting additional research into potential health hazards associated with crumb rubber before moving forward with new installations[3].

To make matters worse, crumb rubber pieces are not stationary, but instead often end up on athletes' shoes and clothing, in their mouths, ears and noses, and crumb rubber dust particles can be easily inhaled as they become disturbed during regular play. Also, as volatile chemicals outgas, they create inhalation exposures of their own, especially in warmer temperatures. Health reports from around the nation have documented an extraordinarily high occurance of lymphoma and leukemia among athletes using synthetic turf fields, especially among soccer goalies. In addition, facilities staff charged with maintaining synthetic turf fields have begun reporting strange cancers of the cuticles as well as respiratory problems. While more research is needed to fully identify the risks to humans, there is ample emerging evidence to warrant reactions by doctors, parents and coaches for more independent, scientific research on the health effects of crumb rubber tires. Additionally, since many of these chemicals are toxic at any level of exposure, the presence of just one or more of these toxins on children's athletic fields is enough to warrant a public health concern.

[3] http://www.ct.gov/caes/lib/caes/documents/publications/fact_sheets/examinationofcrumbrubberac005.pdf

In conclusion, used tires present a considerable environmental problem and need to be addressed in a manner that is safe and consistent with good environmental and health management practices. Reusing recycled rubber can be a viable solution for creating construction materials and molded consumer goods, but should not be used to produce fuel, artificial reefs, or synthetic playing fields, where their constituents can have a devastating impact on our environment.

The Connecticut General Assembly should move forward with legislation aimed at creating a responsible, sustainable, and environmentally prudent tire stewardship program that gives careful consideration to the end-use and potential health risks of rubber made from recycled automobile tires. Using peer reviewed scientific review; the burden must be to prove a tire reuse application is safe before it is approved for application, rather than waiting for harm to occur and reacting. To ensure that decisions are made with the best science available and in the public interest, the process for determining appropriate uses for used tires through the tire stewardship program must be transparent, with robust opportunities for stakeholder engagement and meaningful public participation.